

“Bus Driver Availability Study”

Prepared for Pete Baxter, Director
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FINAL VERSION

Executive Summary

A stratified random sample of 50 transportation officials from public schools in Indiana were telephone interviewed to shed light on the following questions: *1) how widespread is the shortage of school bus drivers?; 2) how are the shortages experienced?; 3) what are the perceived reasons for the shortage?; and 4) what are the opinions of local school transportation officials on the subject of increased physical standards for school bus drivers?*

The major findings of the study are:

└ There is a widespread shortage of qualified school bus drivers in Indiana; however, “severe” operational problems caused by the shortage is limited to about a third of public school corporations.

└ Over three-quarters of those responding cited the part-time nature of bus-driving as a reason for a shortage of on-going qualified school bus drivers; almost two-thirds cited the same reason for shortages of substitute drivers.

└ Pay and financial considerations are thought to be the major reasons why a shortage is occurring. Indeed, over 70% of the sample cited some kind of financial consideration as explaining the shortage of qualified school bus drivers in their local area. Indeed, the three most common answers to questions about the reasons for the shortage of both full-time and substitute drivers have to do with pay; either because other jobs pay more per hour that require similar qualifications or people opt for “full-time” work in order to earn more. Additional evidence that this stands as a major “cause” of the shortage is that the most common reason cited for bus drivers leaving that work was to take a different job.

└ Among corporations who report *not* experiencing a shortage in the last year, they report the shortage is due to a short supply of qualified people who can drive school buses. This group took action to help expand the supply of qualified people who could drive school buses.

└ Given the realities of widespread shortages, increased competition for similarly qualified workers, and perhaps an aging work force, it is surprising that corporations do not “beat the bushes” harder trying to find new drivers.

└ A common practice (72%) among public school corporations is to permit other kinds of trips (ECA, athletic related, etc) during “route” time. Of those with such a policy, over 80% indicated it exacerbated their experience of a shortage.

└ There is much that public school corporations could do to offset the shortage of qualified school bus drivers in their locales that is directly under their control and that is short of significantly

raising the pay and benefits their drivers receive. For instance, changing policies that permit other trips during “route time” would reduce the demand for drivers at critical times. Also, most corporations rely on hiring from, in many cases already short, substitute lists and word of mouth among drivers. Expending more energy in developing and identifying new qualified bus drivers is likely to yield positive results.

Public school corporation transportation officials split over the perceived value of regulating school bus drivers but hold a negative (82%) view of Public Law No. 54-1998, the so-called “school bus driver performance standards and measurement” statute.

Reasons to conduct the “Bus Driver Availability Study”

Recently the Indiana Legislature passed Public Law No. 54-1998. This law amended the powers of the State School Bus Committee and then required it to promulgate administrative rules to prescribe performance standards and measurements for determining the physical ability necessary for a person to be a school bus driver. This law became effective July 1, 1998. The Director of the Indiana State Division of School Traffic Safety and Emergency Planning of the Indiana Department of Education (hereafter referred to as DOE) was concerned by early responses of local school transportation directors about the negative impacts such a change might have on a perceived widespread and apparently growing shortage of qualified Indiana school bus drivers.

DOE contacted the Director of the Sociology Research Lab (SRL) at Indiana State University about conducting a small scale study of school bus driver availability in the State of Indiana. DOE had four questions they wished to shed light on with a systematic and reliable study. The four questions were: *1) how widespread is the shortage of school bus drivers?; 2) how are the shortages experienced?; 3) what are the perceived reasons for the shortage?; and 4) what are the opinions of local school transportation officials on the subject of increased physical standards for school bus drivers?.*

Methodology

Due to cost, this study was limited to a sample of the 297 Indiana public school corporations. Data were collected through telephone interviews of 50 public school corporation transportation directors (or the official holding those responsibilities). Telephone interviews are an excellent method to use in this case because unlike the more common method of mailing questionnaires to the sample, telephone interviewing assures a much higher response rate, assures that the information comes from the designated respondent, and decreases the amount of “missing data” since a skilled interviewer can prompt the respondent to answer while the respondent might skip some questions or more carelessly mark their answers. The response rate for this sample was 100 percent (compared to less than 50 percent for mailed questionnaires). The high response rate is important because when response rates are low it reduces the reliability of the data since it may be possible that those who do not respond might respond quite differently than those who do. In essence, “volunteers” may reflect a very different subgroup of the population than those who did not return their questionnaire. While there are methods to ascertain if there is indeed a difference, many studies using mailed questionnaires do not do that.

The sample of 50 was a *stratified random sample* of the 297 Indiana public school corporations. The reason to use stratified random sampling is to gain a more representative sample. The population of 297 corporations was broken down into smaller subpopulations (strata) based on meaningful supplementary information. In this case we used the The School Transportation Association of Indiana’s regional organization of public schools. The School Transportation Association of Indiana organizes itself into ten regions. This regional organization was used as the sampling frame for this

study. A *simple random sample*, that is, each school corporation within each region had an equal chance of being selected, was drawn from each region's school corporations proportional to the region's proportion of Indiana's public school corporations. Numbers were assigned to each school corporation within each region and then using a table of random numbers, specific school corporations were identified from each region. The specific number from each corporation was selected based on the region's overall proportional representation of the 297 public school corporations. Thus, if a particular region represented 15 percent of the whole, then 15 percent of the sample or 8 school corporations were selected for the sample from that region. Table 1. shows the proportional breakdown of the Regions and the corresponding number of corporations selected from each region to makeup the sample of 50 Indiana public school corporations.

The questionnaire used in the study was developed through the collaboration of the Director of DOE and the Director of the SRL (see Appendix A for the questionnaire). Recall there were four questions DOE was interested in. These became the research questions for this study. Data for the first question, *1) how widespread is the shortage of school bus drivers?*, were obtained through asking the designated corporation official whether they had experienced a shortage of qualified school bus drivers in the last year. Those who indicated they had not were

Table 1.

Proportional Distribution of Indiana Public School Corporations by Region and Number Selected for Sample

Region	Proportion of Indiana Public School Corporations	Number selected for sample
1	10.1%	5
2	8.1%	4
3	8.8%	4
4	5.1%	3
5	12.1%	6
6	9.4%	5
7	8.4%	4
8	14.5%	7
9	12.8%	7
10	10.8%	6
Total		50

asked whether they were aware of any other corporations that had experienced a shortage of qualified school bus drivers in the last year.

Data on the second research question, *how are the shortages experienced?*, were obtained by asking a series of questions about how the shortage affects the school corporation, what is done when they are experiencing a shortage (how they cope with it), and how frequently specific kinds of shortages are experienced.

Data on the third research question, *what are the perceived reasons for the shortage?*, were obtained by asking a series of questions related to what the interviewed corporation official thinks the reasons are for the shortage.

Data on the fourth research question, *what are the opinions of local school transportation officials on the subject of increased physical standards for school bus drivers?*, were obtained by asking three questions about the impending new physical standards and gauging the interviewed corporation official's strength of agreement or disagreement to statements about new standards.

Lastly, data were collected related to the hiring practices of corporations in order to offer some possible beginning solutions to a shortage.

Table 2. shows the research questions and the questionnaire items used to shed light on each of the research questions. The questionnaire items and raw frequencies for each item can be found in Appendix A.

The interviews were conducted by two SRL Research Assistants, each one interviewing 25 school corporation officials. The interviews began the first week of February and were completed in the third full week of March. One hundred percent of the sample was collected.

Detailed Findings

How widespread is the shortage of school bus drivers? Sixty four (64) percent of respondents reported having experienced a shortage of qualified school bus drivers in the last year. That means that we can say with 95% certainty that between 51 and 77 percent of all Indiana Public School Corporations experienced a shortage of qualified school bus drivers in the last year. Adding a bit of corroborating evidence to the SRL estimate, 66.7% of respondents who reported their corporation had **not** experienced a shortage of qualified school bus drivers in the last year, reported that corporations adjacent to theirs had experienced a shortage. Figure 1 shows the distribution of responses to Questions 1 and 20 of the survey. However, it could be that the shortages, while widespread, are not very "deep." That is why the study also sought information on the specifics of the experienced shortages.

Table 2.

The Four Research Questions and the Questionnaire Items used to Obtain Data on those Questions

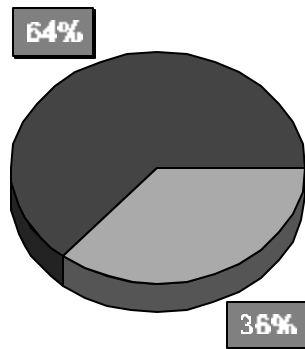
Research Question	Questionnaire items
<i>how widespread is the shortage of school bus drivers?</i>	1, 20
<i>how are the shortages experienced?</i>	2–9, 11, 13
<i>what are the perceived reasons for the shortage?</i>	10, 12–16, 19, 21
<i>what are the opinions of local school transportation officials on the subject of increased physical standards for school bus drivers?</i>	22–24
data on hiring practices	17, 18

How are the shortages experienced? We were interested in shedding light on how acute the shortage was so we asked respondents if they currently had enough drivers to cover their routes. Of those answering yes to having had experienced a shortage in the last year, 93.8% (30 of 32) reported that they currently had enough drivers to cover their routes. So, while two thirds of the sample reported having had a shortage in the last year, only 6.3% of those with a shortage in the last year were currently experiencing a shortage, or only 4.0 percent of entire sample. Relatedly, we asked respondents if they currently have enough drivers to cover all their routes if a driver is sick or otherwise unavailable? Of the 64% who indicated experiencing a shortage in the last year, 78.1% (25 of 32) responded they did have enough drivers to cover all their routes even if a driver is unavailable. This represents one-half of the total sample (see Figure 2.). We are 95% confident that no more than 9.5% of Indiana's public school corporations were experiencing a shortage of qualified school bus drivers during the study period and that no more than 36% of Indiana public school corporations were experiencing a shortage of qualified substitute drivers during the same period. This suggests that while shortages are widespread, they may be intermittent or very short lived.

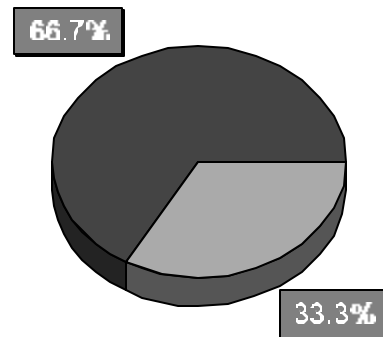
Figure 1.

How Widespread is the Shortage of School Bus Drivers?

In the last year, has your corporation experienced a shortage of qualified school bus drivers?



Are you aware of any corporation adjacent to yours that has experienced a shortage of qualified school bus drivers?



 **Yes**  **No**

Margin of error: ± 13

Margin of error: ± 22

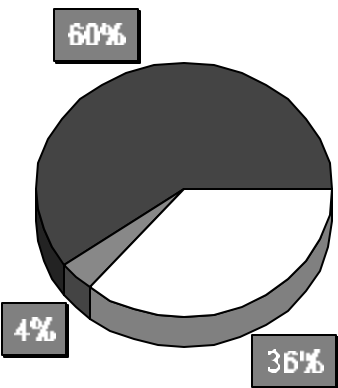
We wanted to better understand the experience of a bus driver shortage in terms of the operational problems they cause. Therefore we asked respondents to tell us how it affected their corporation. Figure 3 shows the frequencies of different kinds of effects a school bus driver shortage has on operations and the most frequently experienced shortage problems.



As is evident from Figure 3, 59% of the sample subgroup that reported experiencing a shortage of qualified school bus drivers in the last year, experienced shortages affecting PM routes and transportation needs such as field trips. This is followed closely by shortages affecting the AM Routes (53% of the sample subgroup). Experience of a shortage for athletic and ECA trips were less common (41 and 38 percent respectively). Coupled with the question asking respondents which problem they experienced the most frequently, suggests that the most common and acute operational problem caused by shortages is a shortage of drivers to cover AM routes (28%). And while the experience is rather common for those who experience it, whatever problem they experience, 53% experience it more than once per week, thus we are 95% confident that only 20-40% of Indiana's public school corporations experience their most common operational problem caused by a bus driver shortage, in whatever form, more than once per week. Indeed we are 95% confident that between 42 and 70% of Indiana's public school corporations experience their most frequent operational problem caused by a shortage of school bus drivers more than once per month. Thus, while shortages are widespread, no more than 40% of public school districts, experience their most frequent operational problem due to a shortage of bus drivers more than once per week. However, while the sample suggests that 40% are either not experiencing a shortage or they experience their most common operational problem less than once per month, 34% are experiencing weekly shortages. This data suggests that while the experience of shortages is widespread, it is an "acute" shortage that a sizable portion of public school corporations experience. While only two of the sample respondents (4%) indicated having a problem every day, 34% indicate having a problem at least once per week. We are thus 95% confident that between 21-47% of Indiana's public school corporations are experiencing at least a weekly operational problem due to a shortage of qualified bus drivers (see Figure 4).

Figure 2.

Experience of School Bus Driver Shortage

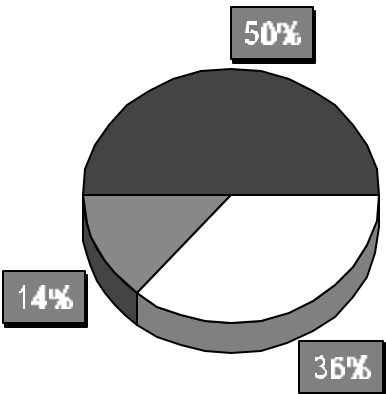
Do you currently have enough drivers to cover all your routes?



 **Yes**
 **No shortage**

Margin of error: ± 5.5

Do you currently have enough drivers to cover all your routes if a driver is sick or otherwise unavailable?

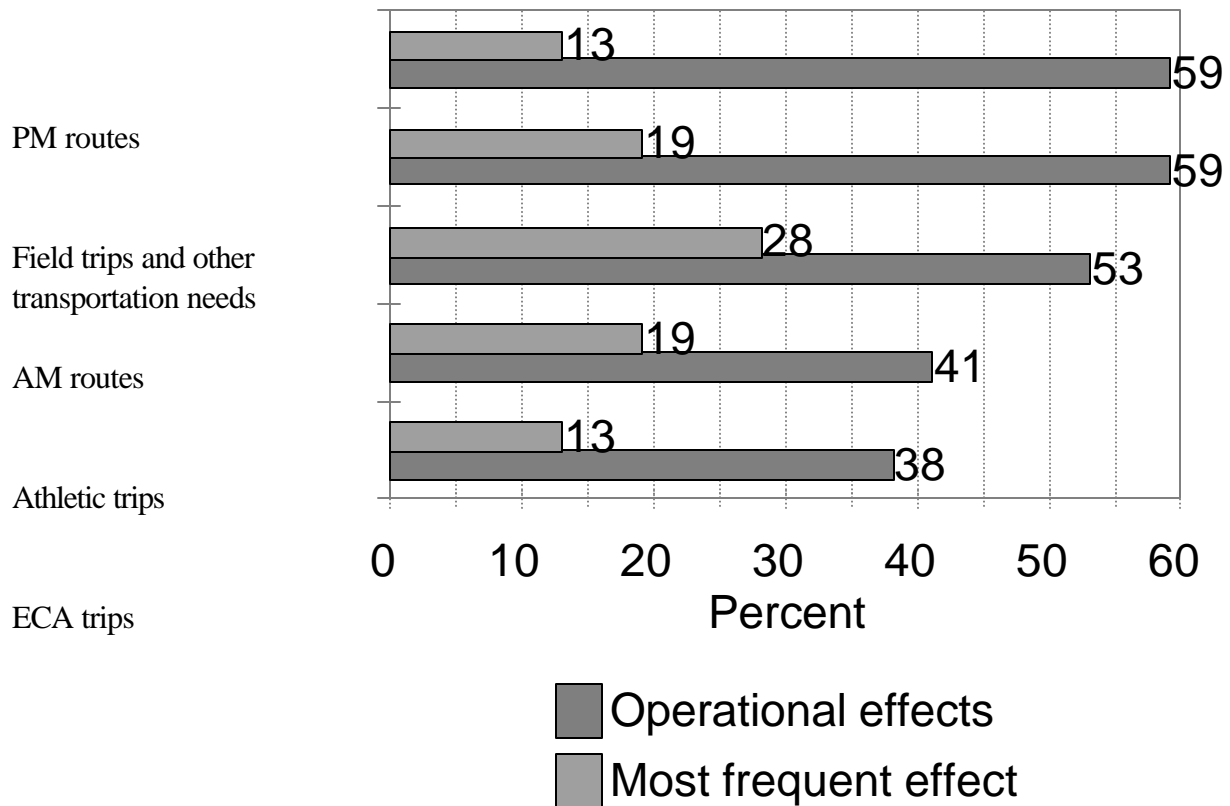


 **No**

Margin of error: ± 14

Figure 3.

Reported Effects of Shortage on Operations and Most Frequently Experienced Effect



How do school corporations experiencing a shortage cope with it? Figure 5 shows the frequency of different “coping” responses to a shortage by those who reported experiencing a shortage in the last year. School corporations “plan” for some shortages. Illness and other common reasons for a driver taking off a day are “predictable” occurrences and thus 94 percent of those responding keep a

substitute driver list. The next most frequent response to having insufficient drivers is to “use other district personnel” to cover the routes. We have reason to believe that some respondents may have misunderstood this response alternative. Some may have understood it to mean call upon personnel from adjacent corporations. Given the relative high frequency of “using maintenance people qualified to drive school buses” when asked for other responses, we feel that the respondents may have misunderstood this option. A third response is to rearrange routes (which would include doubling up routes). The use of a substitute list is the “designed” solution to anticipated driver shortfalls, but 93.8% (± 8) of those respondents who have experienced a shortage in the last year in their corporations indicated they had experienced a shortage of substitute drivers as well.

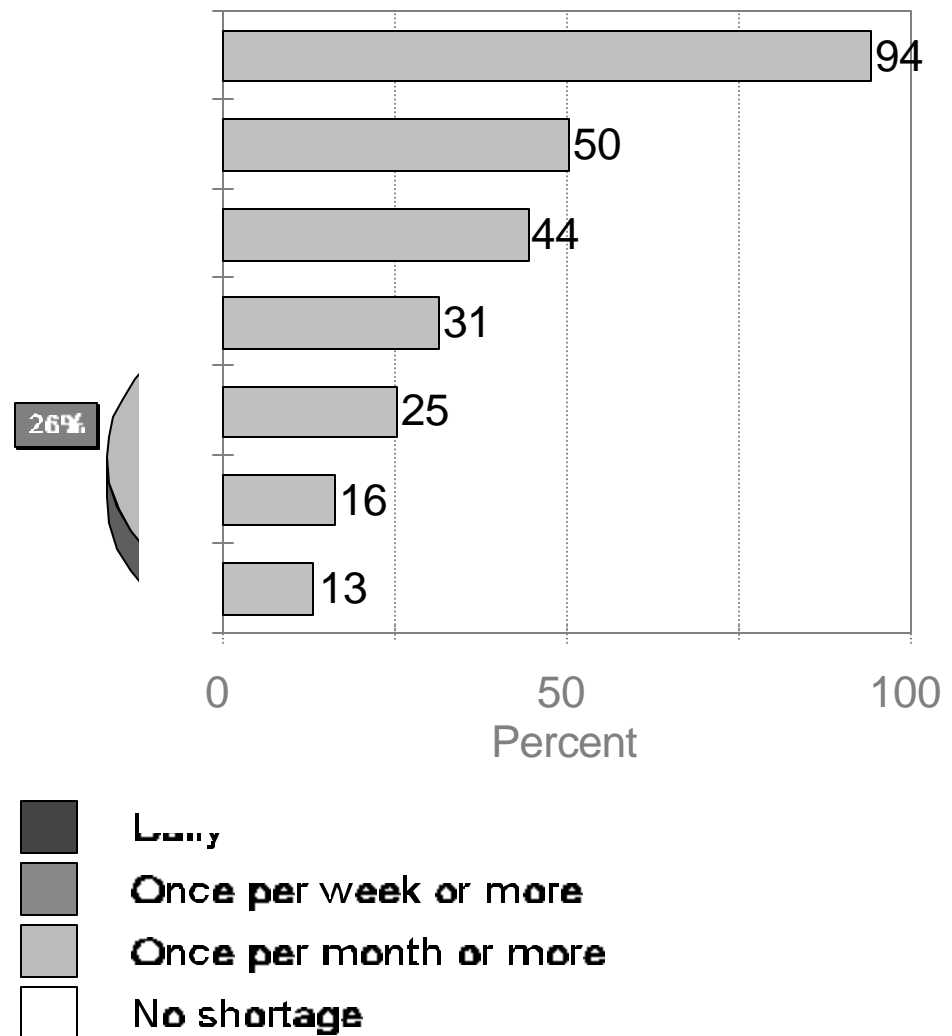
Figure 4.

Frequency of Experience with Most Common Operational Problem Due to Shortage of School Bus Drivers.

Margin of error: “Daily” ± 5 ; “Once per week...” ± 13 ; “Once per month...” ± 12 ; “No shortage” ± 14 .

Figure 5..

Coping with Insufficient School
Bus Drivers.



Responses to Insufficient School Bus Drivers:

Use list of substitute drivers

Use other district personnel to cover

Rearrange routes

Transportation director covers routes

Double up routes

Use maintenance people who have CDL/bus driver license

Other

The use of substitute drivers. Another piece of the puzzle requires understanding what is the most frequent reason to seek substitute drivers. Figure 6 is a breakdown of respondents' use of substitute drivers. It is clear that among those corporations that experienced a shortage of qualified school bus drivers in the last year, that the use of sick days and personal days are the most frequent reason to seek substitute drivers. As will be discussed on pages 25-26, there is reason to suspect that the current complement of school bus drivers may be growing older and with that, the use of sick and personal days might be reasonably expected to increase, perhaps exacerbating the impact of any shortage on transportation operations.

By now it is becoming clear that some portion of Indiana's public school corporations are experiencing significant difficulties with a bus driver shortage. *We define 'severe' difficulties as those corporations who have experienced a shortage in the last year, the effects of the shortage were to cause an operational problem at least once per week and created a shortage of drivers*

Figure 8.

Reasons for Seeking Substitute Drivers (among those corporations who have experienced a shortage in the last year).

Use of sick days by regular driver

Use of personal days

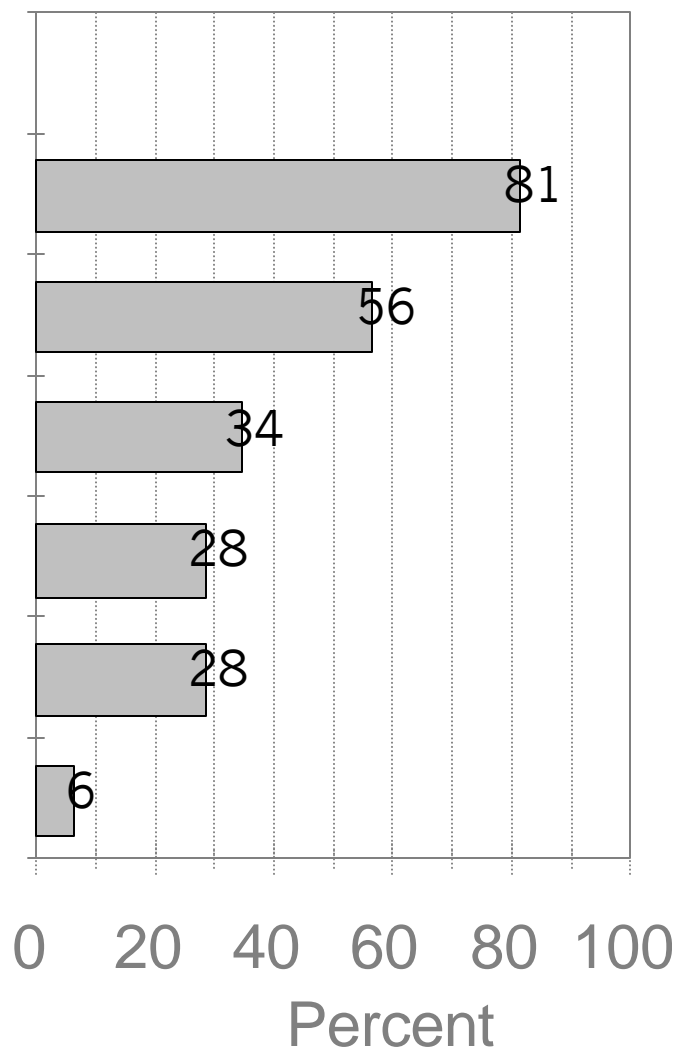
Medical leave due to injury or workers' compensation

Vacation days used during school year

Unpaid leave of absence

Other reasons

on the substitute list. The data show that 34 percent (17 of 50) of the sample are experiencing “severe” difficulties due to a shortage of qualified bus drivers for their corporation. Thus, we would further estimate with 95% confidence that between 21 and 47% of Indiana public school corporations are experiencing “severe” difficulties due to a shortage of qualified bus drivers



What are the perceived reasons for the shortage? The SRL asked the official respondents two sets of questions about their perceived reasons for why they were experiencing a shortage of qualified school bus drivers. One set focused on the idea of a shortage while the other set asked specifically why they experience a shortage of qualified substitute drivers. Like most of the data in the previous section, the responses here are primarily from a subset of the full sample...the 64% of the sample that indicated they had experienced a shortage of qualified school bus drivers in the last year.

We asked respondents for their perceived reasons for both a shortage of full time drivers and substitute drivers. We provided a list of possible reasons and invited officials to add any others they thought relevant. Figure 7 shows the frequency of responses. The responses can be read as tapping three possible broad reasons for a shortage. The first is a “structural” one, rapid growth in the school age population, leading to a shortage. However, only 13 percent of the sample responded affirmatively to that reason for full time drivers and only 9 percent for substitutes. It is reasonable to expect that some portion of the shortage would be due to the growth in school age children in particular areas, at least a shortage from such growth would likely be temporary, as either the growth would level off or the school corporation, over time, would be able to adapt to the increased transportation needs.

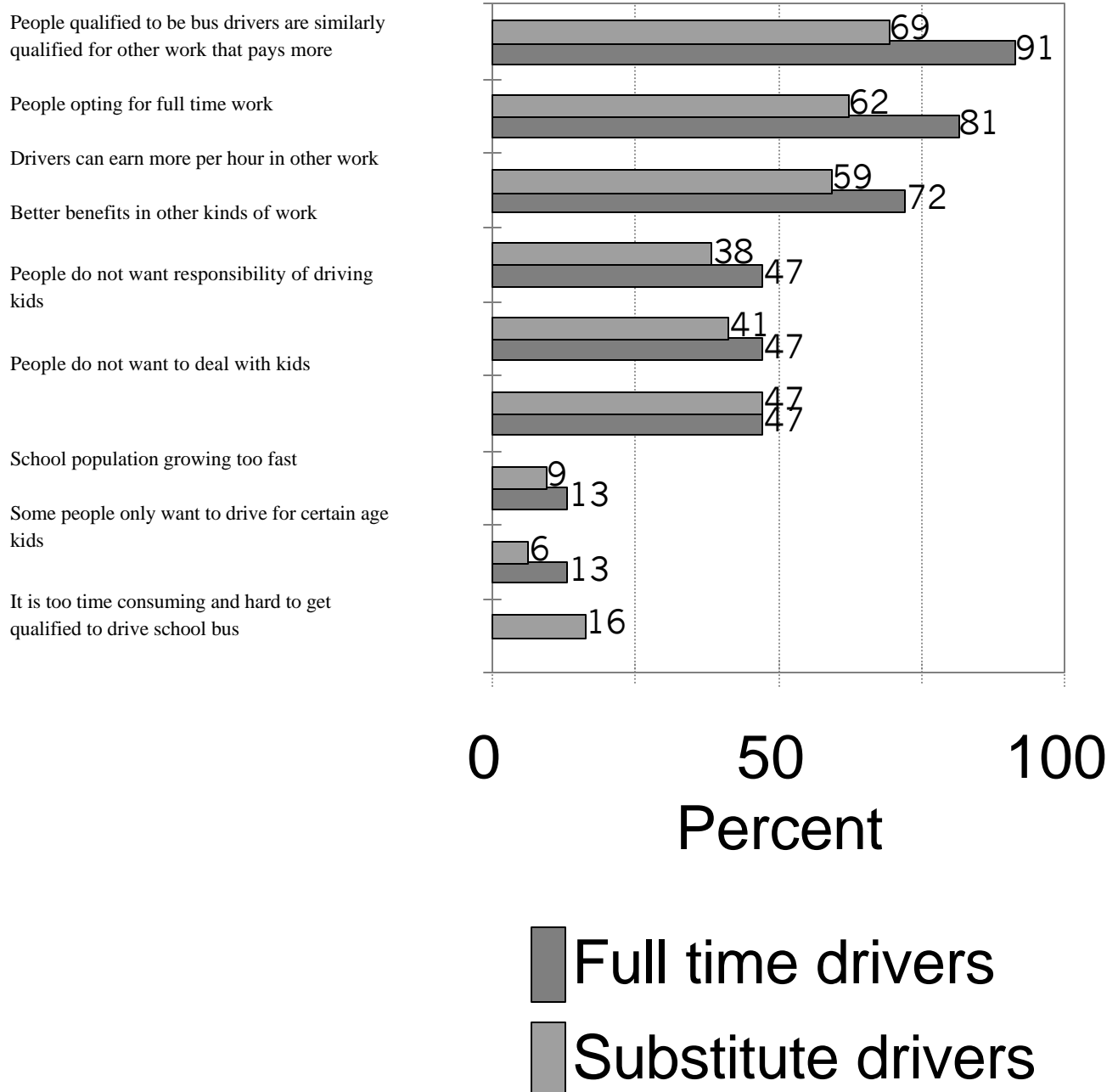
A second reason has to do with the nature of the work itself. Driving school buses demands dealing with children, anything from “kute kindergarteners” to “sour seniors.” Yet, the questions designed to tap something of the nature of the work, about the responsibility of driving children or having to deal with children or even having a preference for certain age children were indicated by less than half the sample (47% for the responsibility and dealing with children) and only 13% for having a preference to drive only for certain age kids. One other feature of school bus driving that did receive a high frequency of response was the part-time nature of the work. 81% indicated that people opting for full time work was a reason for their shortage of full time drivers and 62% indicated this as a reason for a shortage of substitute drivers.

The part-time nature of school bus driving is also related to what appears to be the major perceived reasons for shortages of both full time and substitute drivers--financial considerations. The most commonly stated reasons for the shortage of both full-time bus drivers and substitute drivers was that people qualified to be bus drivers are qualified for other work that pays more (91%) followed by people opting for full time work (81%), and making more per hour in other work (72%) and finally 47% cited better benefits in other work. Recoding these financial reasons into one variable, the result is that 87.5% of the sample that have experienced a shortage in the last year perceive the reasons for the shortage to be financial in nature. That means we are 95%

Figure 7.

Perceived Reasons for Shortage of Full Time and Substitute School Bus Drivers (among those corporations having experienced a shortage of school bus drivers in the last year)

Reasons:



confident that between 72.5 and 99% of Indiana's public school corporation local transportation officials would cite some kind of financial cause as the reason for the shortage of qualified bus drivers in their area.

Additional evidence that the perception that the financial rewards of bus driving contribute to the shortage of qualified school bus drivers is accurate comes from the data collected on why drivers quit or left the job. We asked the reasons the last three drivers quit or otherwise left the job. The answers are instructive for understanding the reasons for a shortage. (It is an important to note that we are assuming that if we could ask the drivers why they quit, that their answers would match what the school corporation officials said.) Figure 8 shows two principal reasons why drivers leave the occupation. It is obvious that retirement (38.9%) and finding other jobs (38.9%) account for three-quarters of the reasons respondents reported for why their last three drivers quit. Interesting enough, we asked if drivers left for other jobs in school transportation. Only 3.3% of the drivers left for other jobs in school transportation, lending additional evidence to the accuracy of the perception that a major cause of the shortage being the financial characteristics of school bus driving. Hence, we can be 95% confident that between 33.7 and 44.1% of Indiana's public school corporations will experience a loss of drivers due to retirement and between 25.8–52.0% of Indiana's public school corporations will lose drivers to other, presumably better paying, jobs.

The focus of our interviews was on the experiences and views of those corporations that had experienced a shortage of qualified bus drivers in the last year. However, one-third of the sample reported not having experienced a shortage. We did ask those respondents an open ended question about why they thought they had not experienced a shortage. While the responses are too few to gain any statistical confidence, they do provide some information about further research and solutions to the problem.

A couple of "themes" emerged from an analysis of the responses to the open ended question. First, those corporations targeted special groups of people who might be recruited to become bus drivers. Among the groups targeted, either to become "full-time" drivers or substitute drivers, were parents, school aides, retired people and teachers. These practices focus on hiring practices, which I further discuss below.

Another "theme" is to offer assistance in obtaining qualified status. While the process of becoming qualified did not emerge as a barrier or a reason for the shortage, it seemed to be a point of awareness in those who had not experienced a shortage. Some respondents indicated that they offered training to potential drivers to help them obtain the CDL (for bus drivers and apparently others who might be interested in the CDL) as well as the corporation would pay them the costs of obtaining the CDL and even provide a bus for the test.

Several respondents noted that their drivers were under "contract." It is not clear whether the contract is collectively bargained or a personal contract with the school corporation or with a

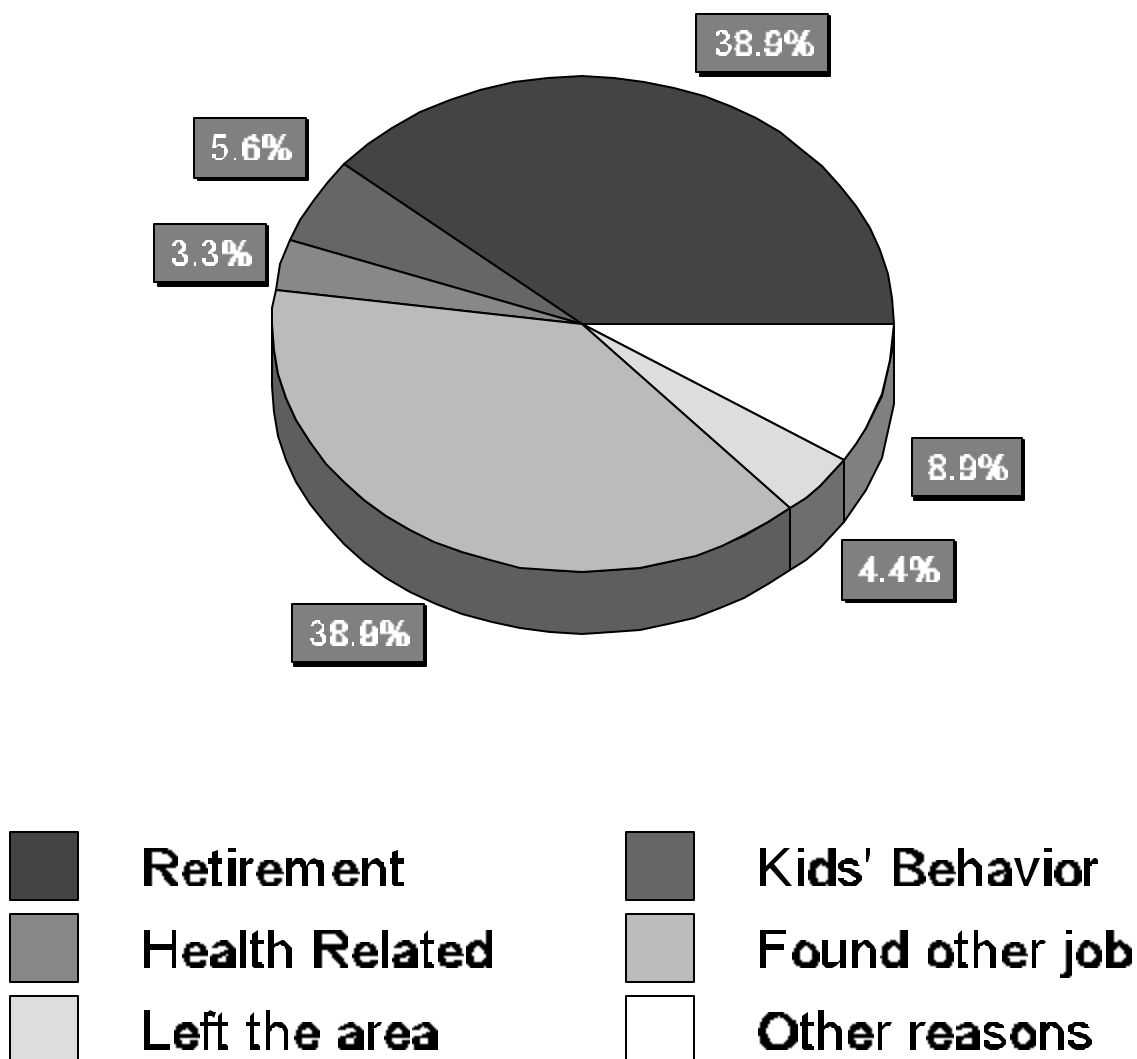
private supplier of transportation. But this, too, would seem to be an avenue to retain commitment as well as make the supply of full-time drivers more predictable.

The importance of keeping an up-to-date and “full” substitute driver list emerged in the comments from this group of respondents. Some offered ways to do this: paying substitutes a little more than is customary (or in relation to adjacent districts); and encouraging aides, teachers, and maintenance people, to qualify as bus drivers for a small increase in their regular pay.

Figure 8.

Reasons School Bus Drivers Leave the Occupation.

One respondent offered almost a blueprint for avoiding a shortage. This corporation apparently targets elderly people with a pitch that it is a good way to supplement retirement income. The corporation provides five weeks of training so drivers can qualify by obtaining their CDL. After five weeks of driving, the corporation moves to enter them in a long term contract and provide full medical coverage for them. Several times this respondent emphasized the personal relationship maintained with all the drivers. Much is done to recognize the drivers. They have special sweatshirts, a Christmas Party, and annual safety awards. In addition, this corporation emphasizes the part-time nature of the work by guaranteeing that routes are 30 minutes maximum. This corporation also hires and trains children to serve as monitors on buses to aid the driver with discipline and reduce the stress and strain of that part of the job. In this one example, many of the above themes are interwoven.



One last item of interest. This group seemed to view that finding qualified people was more of a concern than those who had experienced a shortage. While they recognized the low pay as a problem (as had the others), the group without experience of a shortage worked to expand the *supply* of qualified people who could do the job. This view did not seem to be present among those who had experienced a shortage.

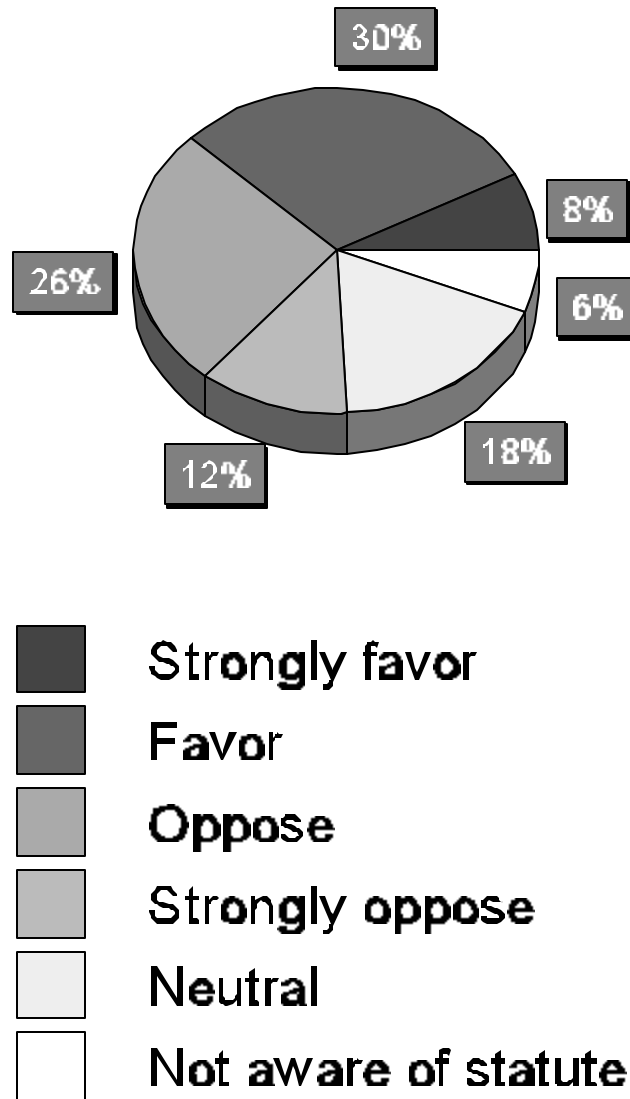
What are the opinions of local school transportation officials on the subject of increased physical standards for school bus drivers? Three questions tapped opinions of school corporation officials on the pending increase in physical standards for school bus drivers. We asked the entire sample the following question:

“We are interested in your opinion on the school bus drivers physical performance standards and measurements statute. Based on what you know right now about these new qualifications, would you say you strongly favor, favor, oppose, or strongly oppose increasing physical standards for qualified bus drivers?”

The results are shown in Figure 9.

Figure 9.

Response to Increased Physical Performance Standards and Measurement Statute.



Margin of error ± 8 for strong favor; ± 13 for favor; ± 11 for oppose; ± 9 for strongly oppose; ± 11 for neutral; and ± 7 for not aware of new statute.

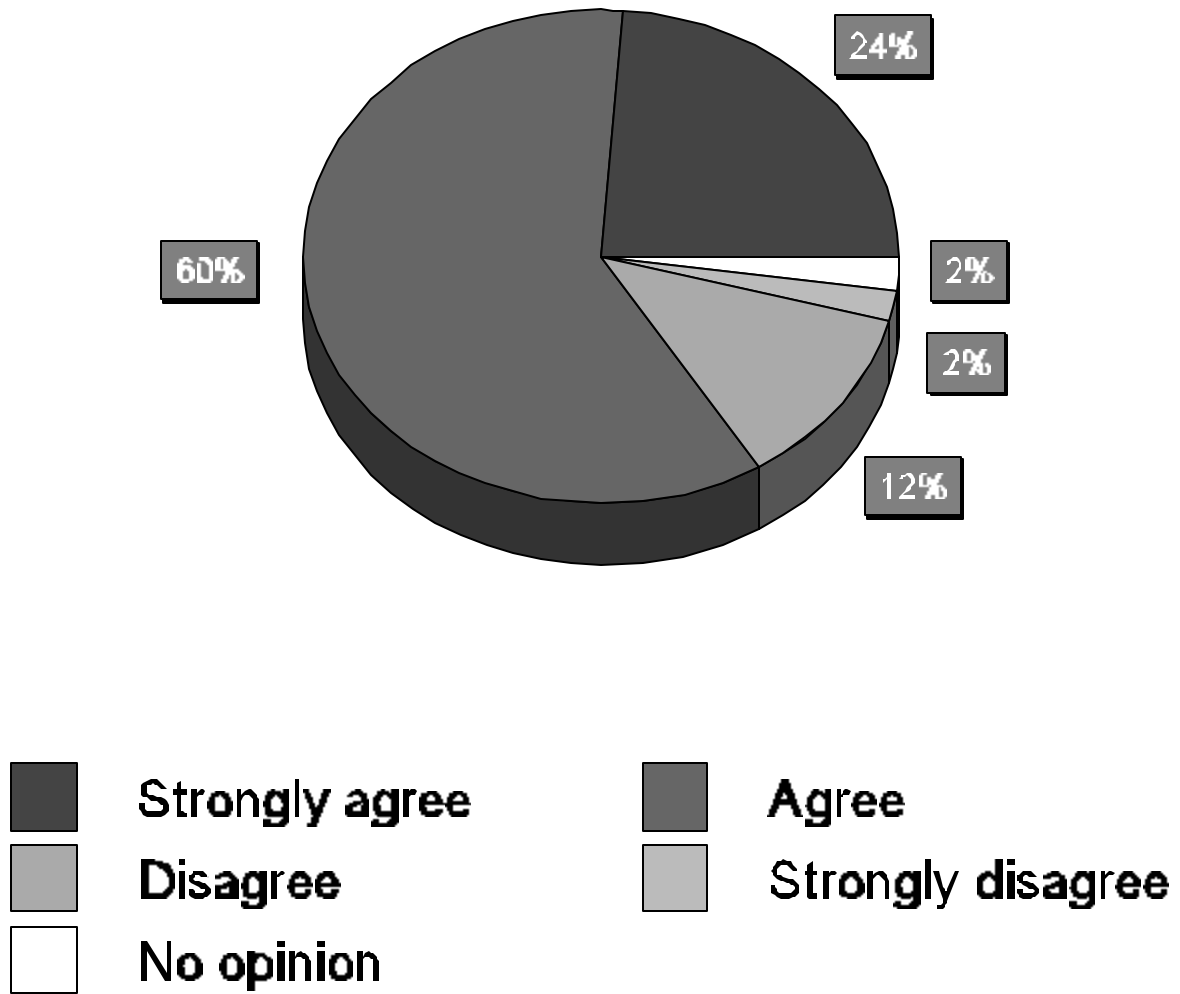
It is interesting that 38% of the sample favor the statute and 38% oppose the statute. The opposition feels more strongly negative than do proponents feel strongly positive about the statute. Almost one quarter of the sample reported neutrality or being unaware of the statute. It is possible that these results reflect less an opinion on the specific statute but regulatory requirements in general. Therefore the SRL also asked respondents a more general question about licensing and regulatory requirements:

“Based on what you know about these proposed changes to the physical standards, how do you respond to the following statement: I believe that licensing and regulatory requirements are beneficial because they insure qualified bus drivers which insure a high level of safety.”

Figure 10 shows the responses to this question.

Figure 10.

Belief that Licensing and Regulatory Requirements are Beneficial.



Margin of error ± 12 for strongly agree; ± 14 agree; ± 9 disagree; ± 4 strongly disagree; ± 4 for no opinion.

Eight-four percent of respondents reported agreement with the statement, thus the results in Figure 9 are probably not “spurious,” that is, the results presented there are actually a response to the particular statement. It is probably safe to say that respondents are reacting to the specifics of this particular statute and are divided over it.

Could the difference of opinion have anything to do with the experience of a shortage in the last year? Table 3 is a test of that hypothesis. The chi-square calculated from this distribution is too low (1.052) to provide any reasonable certainty that there is a relationship between favoring the statute and having not experienced a shortage of school bus drivers in the last year.

Table 3.

Is There a Relationship Between Favoring the Increased Physical Standards Statute and the Experience of a Driver Shortage in the Last Year?

	<u>Favor statute</u>	<u>Oppose statute</u>	Total
Experienced shortage of drivers?			
Yes	11	14	25
No	8	5	13
Total	19	19	38*

*There were only 38 valid cases since 12 respondents were either neutral or were not aware of the statute.

Chi-square = 1.052.

Interviewers asked a third question related to the increased physical standards statute. Respondents were asked to agree or disagree with the following statement:

“Based on what you know about these proposed changes to the licensing requirements, how do you respond to the following statement: Increasing licensing and regulatory requirements of school bus drivers will lead to shortages or increase current shortages of qualified bus drivers experienced by my district.”

The results are shown in Figure 11.

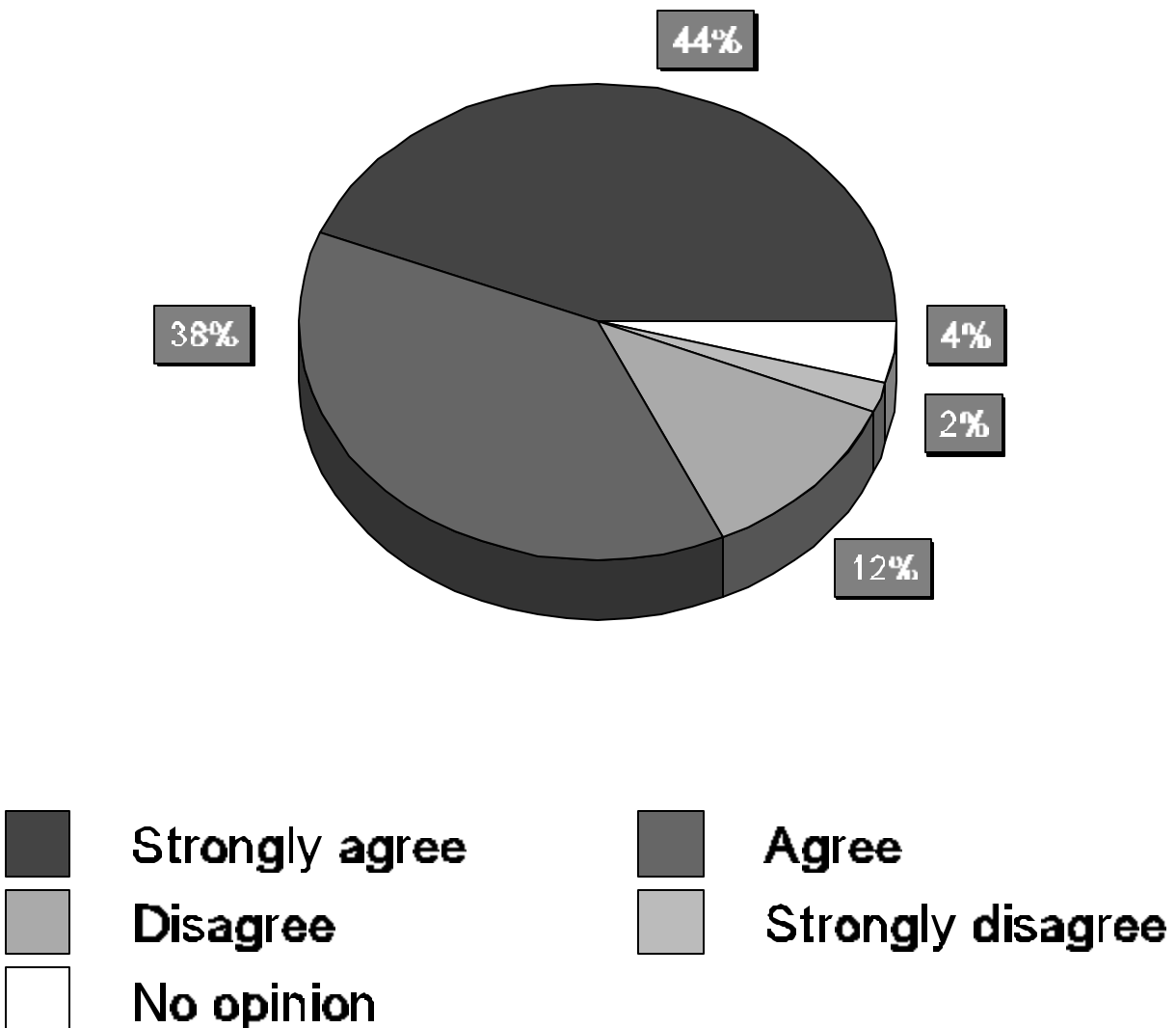
Figure 11.

Belief that Increasing Licensing and Regulatory Requirements of School Bus Drivers Will Lead to or Increase Current Shortages of Qualified School Bus Drivers in My District.

Margin of error ± 14 strongly agree; ± 13 agree; ± 9 disagree; ± 4 strongly disagree; ± 5 No opinion

Eight-two percent of respondents believe that increasing the licensing and regulatory requirements of school bus drivers will either increase the current shortages or lead to shortages where they do not currently exist. I will leave to the **Discussion** section whether there is any evidence in this data to suggest that these beliefs would in fact turn out to be true.

Hiring practices. Collecting data on the hiring practices of public school corporations vis-a-vis school bus drivers was not one of the research questions contracted for, nevertheless, the SRL felt that it might help to shed some light on possible solutions to current or anticipated shortages. Figure 12



shows the frequency of various practices used to find new drivers. Using recoded data, it is clear that

2/3 of of the sample use only one or two methods to find new drivers and the data in Figure 12 suggest that they most likely would be using word of mouth through other drivers (87.5% of sample) or hiring from the sub list (71.9% of sample). Thus, one solution, pretty much under the control of local corporations, is to put more effort into “beating the bushes” to find new drivers as well as to aid in developing new qualified people who could drive school buses. Less than two-thirds (2/3) of the sample rely on advertising in local media and less than one-third (1/3) place ads in “strategic” areas such as schools, or perhaps other places such as license branch offices and truck stops. The evidence from those corporations who have not experienced a shortage in the last year is that considerable attention is being directed to workforce development, recruitment, and retention of their drivers. Increasing efforts should not be too difficult since 90.6% of the sample reported that their drivers were *not* covered by collective bargaining. In short, corporations should have wide latitude in how they find and hire new drivers.

Discussion

From the perspective of a social scientist, this study only begins to answer the research questions. I will discuss the specific areas of further study in a separate section below. This study does however, establish a significant outline of the situation for Indiana’s public schools. And most certainly this study establishes some basic “facts” regarding the perceptions of local public school transportation officials as well as specifics about how shortages of qualified school bus drivers are experienced.

Is there a chronic shortage of qualified school bus drivers in Indiana? The answer must be yes. The data in this study support that conclusion.¹ Sixty-four percent (64%) of the sample

Figure 12.

Use of Selected Practices for Finding New School Bus Drivers.

¹ Further evidence of a shortage can be taken from a survey conducted by the Indiana Association of Public School Superintendents (IAPSS) of its members.. 141 questionnaires were returned for an unknown response rate. Assuming that all public school corporation superintendents are members, that would make the response rate 47%. I must warn that data obtained in this fashion have no statistical reliability or confidence because the randomness of the sample cannot be established. Nevertheless, 91.8% of the 141 responding districts reported “yes” to the question, “Do you have difficulty finding school bus drivers?” “Difficulty is not defined nor is there any attempt to gauge what difficulties members were having.

Word of mouth through other drivers

Hiring from a substitute list

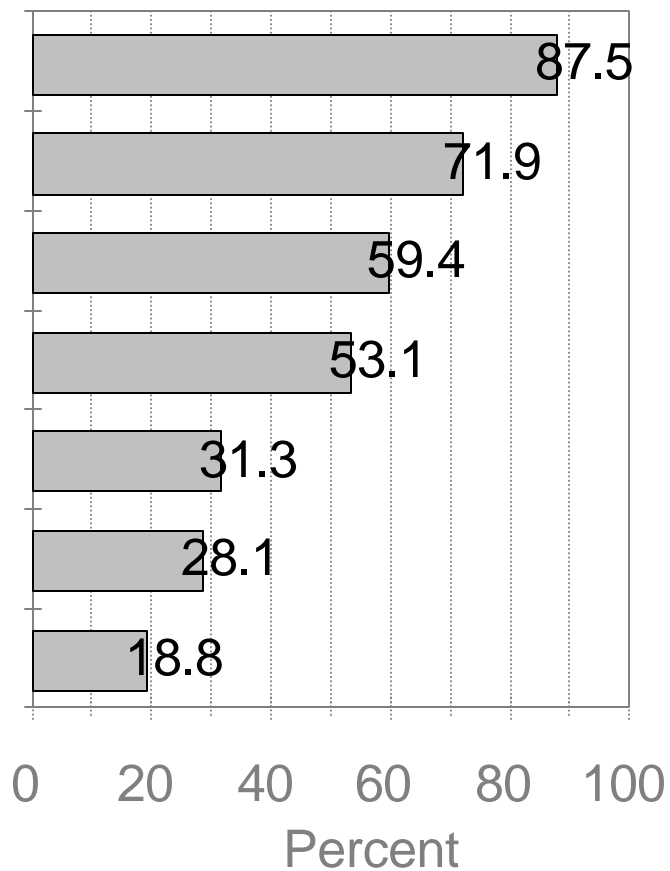
Place ads in local media

Word of mouth through other district personnel

Place ads in schools

Place ads in other places

Other ways



Margin of error ± 12 word of mouth through other drivers; \pm hiring from a substitute list; \pm place ads in local media; \pm word of mouth through other district personnel; \pm place ads in schools; \pm place ads in other places; ± 14 other ways.

drawn for the “Bus Driver Availability Study” conducted by Indiana State University’s SRL, responded they had experienced a shortage in the last year. However, much can be hidden in that answer. A one time shortfall over the course of a year elicits a “yes” just as a shortage of 10% of the drivers needed for a corporation’s transportation needs on a daily basis for the last year elicits a “yes.” The SRL probed further to get a sense of how severe the shortage was by asking if those having experienced a shortage were currently experiencing one. Few responded yes (14% of the total sample). Even these data do not illuminate how seriously a shortage of drivers affects operations.

Over half of the corporations reported the shortage affected their AM and PM routes and driver availability for field trips. These would appear to be the most common operational difficulties caused by the shortage. We asked corporations what was their most frequent problem and then how often they experienced it. Based on these data, it appears that while the shortage of qualified bus drivers in Indiana is widespread, it is only “severe” in one-third of the public school corporations (at this time). Of course that could change. Based on the views of the officials we interviewed, they certainly expect the shortage to get worse if new physical standards are established. The data here, at least indirectly, provide some support to that view.²

The three most common answers to questions about the reasons for the shortage of both full-time and substitute drivers have to do with pay; either because other jobs pay more per hour that require similar qualifications or people opt for “full-time” work in order to earn more. Additional evidence that this stands as a major “cause” of the shortage is that the most common reason cited for bus drivers leaving that work was to take a different job (we assume at higher pay and/or with more hours). Only 9.4% of the sample reported their drivers were covered by a collective bargaining agreement. Research generally upholds the idea that union workers are better paid than nonunion workers in the same line of work. Thus the data here certainly support the current pay of school bus driving as a significant factor in explaining the current shortage of drivers. However, while low pay was recognized by the subgroup of the sample that had not experienced a shortage, the *supply* of qualified people was cited more frequently. And they took measures to increase the supply of qualified people who could be hired or used as substitutes. They also used contracts, though it is not clear whether they were collectively bargained or not. It is unfortunate that more data was not collected on the one-third of the sample that expressed they had not experienced a shortage.

“Retirement” also accounts for a large portion of those leaving bus driving. Recall that the

² One element of operational difficulties used to establish the proportion of the sample experiencing “severe” difficulties was a shortage of substitute drivers. Further evidence can be pointed to in the survey of IAPSS members. Restating the same qualifications about the lack of confidence in the IAPSS survey, 95% of the 141 respondents to that survey reported “yes” to this question: “Do you have difficulty finding substitute school bus drivers.” Again, “difficulty” is not defined and no questions were asked to gauge the “difficulties” entailed.

respondents reported 39% of the drivers quit to take other work and at the same time 39% quit due to retirement. That such a large proportion of those leaving school bus driving is due to retirement suggests some level of positive job satisfaction.

That 39% quit due to retirement also suggests something about the demographics of the current Indiana school bus drivers. If the demographics are such that one third are nearing retirement, the shortage could grow much worse if new drivers are difficult to attract to the work. Data on the demographics of school bus drivers should be examined in order to anticipate this effect. Furthermore, if, as this data leads us to speculate, that the current labor force of school bus drivers in Indiana is “older” than say the median age of the US population (currently about 35), then increased physical standards may eliminate a portion of the current active drivers. However, data on bus drivers must be collected before anything other than speculation can be raised.

Given the realities of widespread shortages, increased competition for similarly qualified workers, and perhaps an aging work force, it is surprising that corporations do not “beat the bushes” harder trying to find new drivers. Over half of the corporations who reported experiencing a shortage in the last year use only one or two methods (of four offered plus others they might add) to find new drivers (see Figure 13). The most common method is to hire from a substitute list. But apparently substitutes are also in short supply and hiring a substitute will just exacerbate, in some cases, the shortage of qualified substitute drivers. Relying on word of mouth among drivers, the second most common method, may be reaching a point of diminishing returns if the drivers are increasingly in short supply, that shortage reduces that network of possible drivers as well. More aggressive tactics should be tried. Evidence from the subgroup of corporations that had not experienced a shortage suggests that they “beat the bushes” VERY hard to find, attract, and train, if necessary, new drivers. Unfortunately there is insufficient data to determine whether those who use more tactics experience less of a shortage or a less severe impact from a shortage.

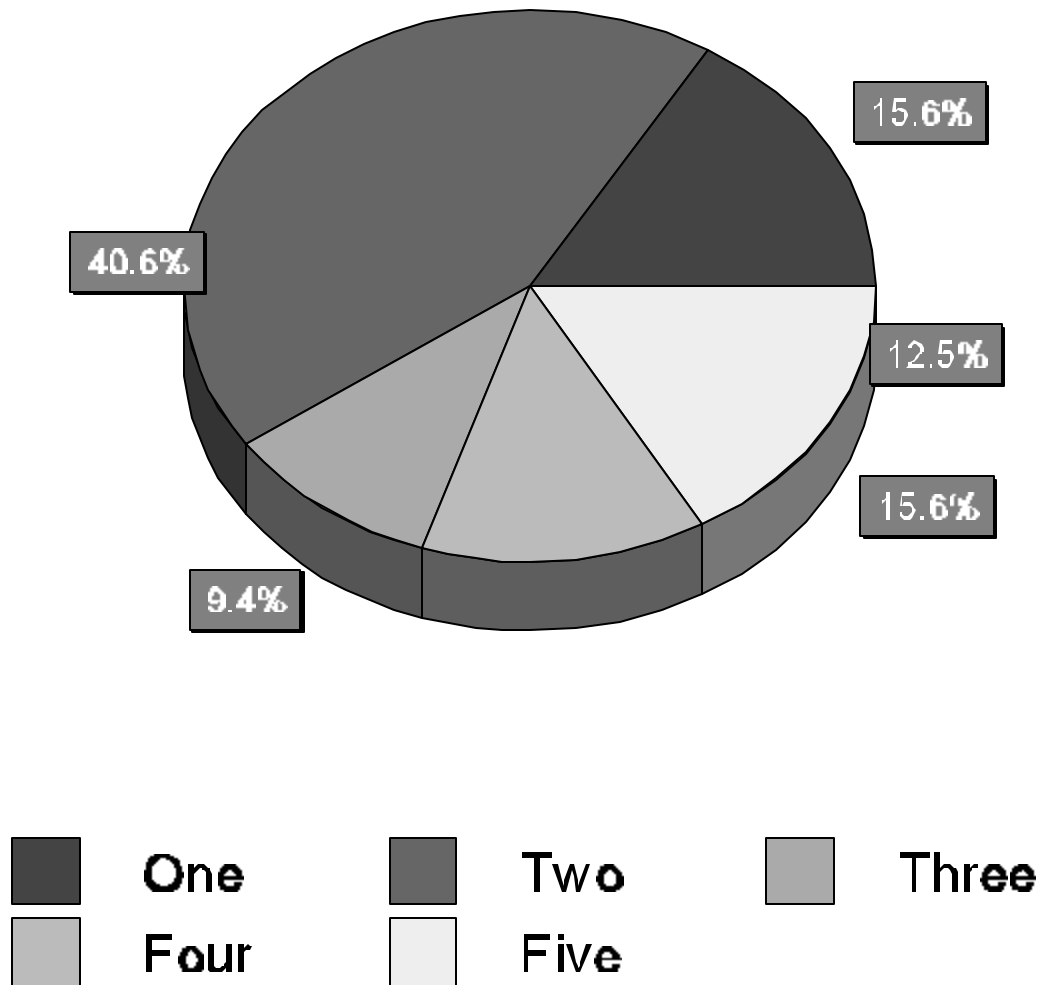
Strong belief in “driver shortage is due to low pay” might lead some corporations experiencing a shortage to believe there is nothing they can do about it. Since increasing pay is probably one of the most difficult things for a corporation to do, given it has such little control over its revenues (increased costs cannot easily be passed on to the “consumer”), corporations may not even think to approach the problem in other ways, such as some of the ways those corporations who have not experienced a shortage have. In short, a strong belief in low pay is THE cause of the driver shortage might be similar to the once taken for granted “fact” that the earth was flat....the belief was so strong that no one bothered to try sailing too far away from shore.

The data do demonstrate strong negative views toward the pending new physical standards statute and even stronger beliefs that those new standards will make the school bus driver shortage worse. This is true even among those corporations reporting they have not experienced a shortage in the last year. Of course, it must be emphasized that just because the corporation officials in the sample believe this, does not mean it will necessarily be the case. There is no data in this study to suggest that

their belief is not accurate, with the possible

Figure 13.

Number of Different Methods Used to Find New School Bus Drivers (among those corporations having experienced a shortage in the last year).



exception that increasing the number of tactics used to find new bus drivers might offset any shortage. There is indirect evidence in this study to suggest a real basis for their belief that increasing the physical standards of Indiana's school bus drivers will lead to an increased shortage. This lies in the indirect indication that school bus drivers may be older than the median age of the US population and thus a proportion of them may be unable to meet the standard. Of course that would require that current drivers need to meet the new standards instead of just new hires. Certainly exempting current drivers from the new standards or phasing in the standards would help to offset the immediate impact of the new standards. However, the inability to hire new drivers to replace those retiring, which is perhaps the reality now without the new standards, may be exacerbated by new standards. More information and analysis is required about the demographics of Indiana's school bus drivers.

One obvious answer to the shortage problem is to pay qualified school bus drivers more money. This option is not always possible however because unlike many other services where the increased costs can be passed directly to the consumer, that is not easily done with public school "consumers." One possibility would be to encourage school bus drivers to unionize or for corporations to enter into long-term contractual agreements with their drivers³.

In data not presented above, we asked respondents whether they permitted other kinds of trips to occur during "route" time. Seventy-two percent (72%) of those corporations experiencing a shortage indicated they permitted this. And 83% indicated this practice exacerbated the driver shortage. Perhaps changing that policy would provide at least some short-term relief to negative effects of the shortage on operations.

Areas for further research. This small, low cost study, is just a beginning. There would be much to learn by focusing the next study on those corporations that report **not** having experienced a shortage of drivers in the last year. Why not? This study offered no systematic evidence as to why that was the case because the focus of this study was on learning about the shortage.

Obviously the best source of why there is a shortage is to interview drivers themselves. Without question they could shed considerable light on why they choose this kind of work. Interviews with those who have recently left the occupation for other jobs, too, would provide data that could lead to policy changes or tactics that local corporations could use to "combat" their shortage. Plus, they would be in an excellent position to judge whether they will pass the new standards or not. Perhaps a survey of drivers asking them to judge themselves against several possible standards to measure which standards are going to have the least (and most) impact would help

³ Further evidence that immediate pay raises for bus driving may not be a viable solution comes from the IAPSS survey. Again, restating the previously noted qualifications about this survey, only 6.6% of those respondents indicated they had "adequate appropriations in your Transportation Fund with which to pay any necessary higher salaries to attract more qualified drivers."

Community surveys to determine the real availability of qualified people or people who could “easily” become qualified school bus drivers is another area that needs research. Without some kind of a survey, it is not possible to really know the potential pool of qualified school bus drivers since there is no obvious pipeline or bottle neck that can be monitored to indicate the size of the pool.

This study focused on public school corporations because it was easy to identify a sample to interview. There are other entities that use school buses to transport students. Parochial schools, private schools, and special education districts are just three other entities that employ school bus drivers. They need to be surveyed in order to fully gauge the shortage of school bus drivers as well as the degree of operational problems experienced across the full spectrum of educational entities using school buses in Indiana. Public Law No. 54-1998 covers all school bus drivers, not just those driving for public school corporations.

Finally, DOE might be interested in hearing from parents about this new statute. While the legislature passed the statute, legislatures often pass statutes without statistically sufficient participation or reliable information. While I am not suggesting that a survey be conducted with an eye to asking the legislature to rescind this law, DOE who must eventually promulgate this new standard could take into account the interests of parents as well as assess whether they are willing to “pay” for the added safety of their children.

Conclusions

This study succeeds in providing a sound beginning to answering DOE’s questions. It must be emphasized that there is insufficient data to answer the questions fully. That is often the case with pilot studies; they often raise as many questions as they answer. In this case, many new questions are apparent but we have answered some, too.

There is a shortage of qualified school bus drivers in Indiana. It is not clear whether the shortage is due to the low pay and part-time nature of the work or a low supply of qualified people or a combination of both. It is clear, however, that over 70% of Indiana’s public school transportation officials believe some kind of financial reason is behind the shortage of qualified school bus drivers in their local area. *There is evidence that those who work to raise the supply of qualified people seem to **not** experience a shortage, but the evidence is only anecdotal. Clearly this is an area for more study.*

While there is a shortage its impact, at this time, is not severe for most public school corporations. Only one-third of the sample experienced severe operational difficulties due to the shortage. Of course this could change and a clear majority believe the shortage will increase as increased physical standards are established. How much flexibility around those standards there are, remains to be seen.

Local corporation officials are split over the general value of increased requirements for school bus drivers. They believe that this new legislation, however, will cause problems for them maintaining their pools of qualified school bus drivers. .

Apparently most corporations do not spend much “energy” in trying to locate new qualified bus drivers, relying on hiring from, in many cases already short, substitute lists and word of mouth among drivers. Also, the majority permit other trips to occur during route time. Both these policies are probably under the direct control of the local corporation and could be changed to help alleviate any shortage.

Appendix A

Frequency Count of Responses to Questionnaire Items.

Survey of Public School Corporation Transportation Directors

Case number: _____

1. We are interested in collecting information about school bus driver availability in the state of Indiana. In the last year, has your corporation experienced a shortage of qualified school bus drivers?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	32	64.0	64.0	64.0
	No	18	36.0	36.0	100.0
	Total	50	100.0	100.0	

2. We are interested in gauging the seriousness of that shortage of qualified bus drivers. The following questions will help us to better understand.

Do you currently have enough drivers to cover all your routes?

..

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	30	60.0	93.8	93.8
	No	2	4.0	6.3	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

3. Do you currently have enough drivers to cover all your routes if a driver is sick or otherwise unavailable?

.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	25	50.0	78.1	78.1
	No	7	14.0	21.9	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

4. During “route time,” does your corporation allow other trips, such as activity trips, athletic trips, ECA trips, or any similar trips, to occur?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	23	46.0	71.9	71.9
	No	9	18.0	28.1	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

5. Does this exacerbate driver availability?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	19	38.0	82.6	82.6
	No	4	8.0	17.4	100.0
	Total	23	46.0	100.0	
Missing	System	27	54.0		
Total		50	100.0		

6. Could you tell us how the shortage affected your district? Did it affect your(check all that apply):

1. AM routes

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	17	34.0	56.7	56.7
	No	13	26.0	43.3	100.0
	Total	30	60.0	100.0	
Missing	9.00	2	4.0		
	System	18	36.0		
	Total	20	40.0		
Total		50	100.0		

2. PM routes?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	19	38.0	63.3	63.3
	No	11	22.0	36.7	100.0

	Total	30	60.0	100.0
Missing	9.00	2	4.0	
	System	18	36.0	
	Total	20	40.0	
Total		50	100.0	

3. Field trips and other transportation needs during the school day

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	19	38.0	65.5	65.5
	No	10	20.0	34.5	100.0
	Total	29	58.0	100.0	
Missing	9.00	3	6.0		
	System	18	36.0		
	Total	21	42.0		
Total		50	100.0		

4. athletic trips

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	13	26.0	44.8	44.8
	No	16	32.0	55.2	100.0
	Total	29	58.0	100.0	
Missing	9.00	3	6.0		
	System	18	36.0		
	Total	21	42.0		
Total		50	100.0		

5. ECA trips

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	12	24.0	41.4	41.4
	No	17	34.0	58.6	100.0
	Total	29	58.0	100.0	
Missing	9.00	3	6.0		
	System	18	36.0		
	Total	21	42.0		
Total		50	100.0		

7. <Determine which of those checked in Q6 are is the most frequent> Which of these have you experienced the most frequently?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	AM routes	9	18.0	32.1	32.1
	PM routes	4	8.0	14.3	46.4
	For field trips and other. trans. needs during the school day	6	12.0	21.4	67.9
	Athletic trips	4	8.0	14.3	82.1
	ECA trips	5	10.0	17.9	100.0
	Total	28	56.0	100.0	
Missing	9.00	3	6.0		
	System	19	38.0		
	Total	22	44.0		
Total		50	100.0		

8. <Referring to answer above> How frequently do you experience that shortage?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Every day	2	4.0	6.7	6.7
	Once per week	9	18.0	30.0	36.7
	More than once per week	6	12.0	20.0	56.7
	Once per month	6	12.0	20.0	76.7
	More than once per month	7	14.0	23.3	100.0
	Total	30	60.0	100.0	
Missing	9.00	1	2.0		
	System	19	38.0		
	Total	20	40.0		
Total		50	100.0		

9. How do you cope with insufficient drivers to cover your needs? <Check all that apply>

director covers routes

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	10	20.0	31.3	31.3
	No	22	44.0	68.8	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

Rearrange routes

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	14	28.0	43.8	43.8
	No	18	36.0	56.3	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

Double up routes

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	8	16.0	25.0	25.0
	No	24	48.0	75.0	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

Use other district personnel to drive routes

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	16	32.0	50.0	50.0
	No	16	32.0	50.0	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

Use list of substitute drivers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	30	60.0	93.8	93.8
	No	2	4.0	6.3	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

Unpaid volunteers such as parents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	32	64.0	100.0	100.0
Missing	System	18	36.0		
Total		50	100.0		

7. Other, please describe: _____

.Maintenance people have CDL/bus driver license

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	5	10.0	15.6	15.6
	No	27	54.0	84.4	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

Other

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	8.0	12.5	12.5
	No	28	54.0	87.5	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

10. We are interested in why you experience shortages of school bus drivers. Thinking about the availability of full time drivers, which of the following apply? *<check all that apply>*:

1. School population is growing faster than we can provide services.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	8.0	12.5	12.5
	No	28	56.0	87.5	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

2. People qualified to be bus drivers are similarly qualified for other work that pays more

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	29	58.0	87.9	87.9
	No	4	8.0	12.1	100.0
	Total	33	66.0	100.0	
Missing	System	17	34.0		
Total		50	100.0		

Why experience shortages? Is that because these people are opting for full-time work

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	26	52.0	81.3	81.3
	No	6	12.0	18.8	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

Why experience shortage? They can earn more per hour

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	23	46.0	71.9	71.9
	No	9	18.0	28.1	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

Why experience shortages? better benefits in other work?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	15	30.0	46.9	46.9
	No	17	34.0	53.1	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

3. People do not want to shoulder the responsibility of driving kids

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	15	30.0	46.9	46.9
	No	17	34.0	53.1	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

4. People do not want to deal with kids.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	15	30.0	46.9	46.9
	No	17	34.0	53.1	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

5. People only want to drive for certain age of children

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	4	8.0	12.5	12.5
	No	28	56.0	87.5	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

only want to drive for certain age children...which one? Elementary

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Elementary	2	4.0	100.0	100.0
	9.00	30	60.0		
	System	18	36.0		
	Total	48	96.0		
Total		50	100.0		

11. Sometimes substitute drivers are needed. Have you experienced a shortage of substitute drivers in the last year?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	30	60.0	93.8	93.8
	No	2	4.0	6.3	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

12. Which of the following situations have caused you to seek substitute drivers in the last year?
<check all that apply>

Medical leave due to injury or workers' comp

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	11	22.0	37.9	37.9
	No	18	36.0	62.1	100.0
	Total	29	58.0	100.0	
Missing	9.00	1	2.0		
	System	20	40.0		
	Total	21	42.0		
Total		50	100.0		

2. Use of sick days

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	26	52.0	89.7	89.7
	No	3	6.0	10.3	100.0
	Total	29	58.0	100.0	
Missing	9.00	1	2.0		
	System	20	40.0		
	Total	21	42.0		
Total		50	100.0		

3. Use of personal days

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	18	36.0	62.1	62.1
	No	11	22.0	37.9	100.0
	Total	29	58.0	100.0	
Missing	9.00	1	2.0		
	System	20	40.0		
	Total	21	42.0		
Total		50	100.0		

4. Vacation days used during school year

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	18.0	31.0	31.0
	No	20	40.0	69.0	100.0
	Total	29	58.0	100.0	
Missing	9.00	1	2.0		
	System	20	40.0		
	Total	21	42.0		
Total		50	100.0		

5. Unpaid leave of absence

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	18.0	31.0	31.0
	No	20	40.0	69.0	100.0
	Total	29	58.0	100.0	
Missing	9.00	1	2.0		
	System	20	40.0		
	Total	21	42.0		
Total		50	100.0		

7. Other reasons

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	2	4.0	7.1	7.1
	No	26	52.0	92.9	100.0
	Total	28	56.0	100.0	
Missing	9.00	1	2.0		
	System	21	42.0		
	Total	22	44.0		
Total		50	100.0		

13. We are interested in why you experience shortages of substitute school bus drivers. Thinking about the availability of substitute drivers, which of the following apply? *<check all that apply>*:

1. School population is growing faster than we can provide services.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	3	6.0	10.3	10.3
	No	26	52.0	89.7	100.0
	Total	29	58.0	100.0	
Missing	9.00	1	2.0		
	System	20	40.0		
	Total	21	42.0		
Total		50	100.0		

2. People qualified to be bus drivers are similarly qualified for other work that pays more

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	22	44.0	75.9	75.9
	No	7	14.0	24.1	100.0
	Total	29	58.0	100.0	

Missing	9.00	1	2.0
	System	20	40.0
	Total	21	42.0
Total		50	100.0

Is that because these people are opting for full-time work?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	20	40.0	69.0	69.0
	No	9	18.0	31.0	100.0
	Total	29	58.0	100.0	
Missing	9.00	1	2.0		
	System	20	40.0		
	Total	21	42.0		
Total		50	100.0		

Is that because they can earn more per

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	19	38.0	65.5	65.5
	No	10	20.0	34.5	100.0
	Total	29	58.0	100.0	
Missing	9.00	1	2.0		
	System	20	40.0		
	Total	21	42.0		
Total		50	100.0		

Is that because of better benefits?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	13	26.0	44.8	44.8
	No	16	32.0	55.2	100.0
	Total	29	58.0	100.0	
Missing	9.00	1	2.0		
	System	20	40.0		
	Total	21	42.0		
Total		50	100.0		

3. People do not want to shoulder the responsibility of driving kids.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	13	26.0	44.8	44.8
	No	16	32.0	55.2	100.0

	Total	29	58.0	100.0
Missing	9.00	1	2.0	
	System	20	40.0	
	Total	21	42.0	
Total		50	100.0	

4. People do not want to deal with kids.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	15	30.0	50.0	50.0
	No	15	30.0	50.0	100.0
	Total	30	60.0	100.0	
Missing	9.00	1	2.0		
	System	19	38.0		
	Total	20	40.0		
Total		50	100.0		

5. People only want to drive for certain age of children.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	2	4.0	6.9	6.9
	No	27	54.0	93.1	100.0
	Total	29	58.0	100.0	
Missing	9.00	1	2.0		
	System	20	40.0		
	Total	21	42.0		
Total		50	100.0		

Only drive for certain age children. Which one?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Elementary	1	2.0	50.0	50.0
	Middle	1	2.0	50.0	100.0
	school/jr high				
	Total	2	4.0	100.0	
Missing	9.00	28	56.0		
	System	20	40.0		
	Total	48	96.0		
Total		50	100.0		

6. Too time consuming and hard to get qualified

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	5	10.0	17.2	17.2
	No	24	48.0	82.8	100.0
	Total	29	58.0	100.0	
Missing	9.00	1	2.0		
	System	20	40.0		
	Total	21	42.0		
Total		50	100.0		

14. Please tell us why the last three drivers quit. Thinking of the last one to quit, did the driver quit because

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Retired	13	26.0	40.6	40.6
	Health related	2	4.0	6.3	46.9
	Kids' behavior	1	2.0	3.1	50.0
	Found other job in school transportation	1	2.0	3.1	53.1
	Found other job	9	18.0	28.1	81.3
	Left the area	1	2.0	3.1	84.4
	Other reason	5	10.0	15.6	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

15. Thinking of the next one to quit. Did the driver quit because?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Retired	11	22.0	35.5	35.5
	Health related	1	2.0	3.2	38.7
	Kids' behavior	3	6.0	9.7	48.4
	Found other job in school transportation	1	2.0	3.2	51.6
	Found other job	11	22.0	35.5	87.1
	Left the area	3	6.0	9.7	96.8
	Other	1	2.0	3.2	100.0
	Total	31	62.0	100.0	
Missing	99.00	1	2.0		
	System	18	36.0		
	Total	19	38.0		
Total		50	100.0		

16. Thinking of the third driver to quit. Did the driver quit because?

Third driver to quit...

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Retired	11	22.0	35.5	35.5
	Kids' behavior	1	2.0	3.2	38.7
	Found other job in school transportation	1	2.0	3.2	41.9
	Found other job	16	32.0	51.6	93.5
	Other reasons	2	4.0	6.5	100.0
	Total	31	62.0	100.0	
Missing	99.00	2	4.0		
	System	17	34.0		
	Total	19	38.0		
Total		50	100.0		

17. We are interested in how you find new qualified bus drivers. Could you tell us a little about how you go about finding suitable drivers? <check all that apply>

1. Hire from a sub list

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	23	46.0	71.9	71.9
	No	9	18.0	28.1	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

2. Use word of mouth through other drivers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	28	56.0	87.5	87.5
	No	4	8.0	12.5	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

3. Use word of mouth through other district personnel

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	17	34.0	53.1	53.1
	No	15	30.0	46.9	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

4. Place ads in local media

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	19	38.0	59.4	59.4
	No	13	26.0	40.6	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

5. Place ads in schools

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	10	20.0	31.3	31.3
	No	22	44.0	68.8	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

6. Place ads in other places

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	9	18.0	28.1	28.1
	No	23	46.0	71.9	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

7. Other ways

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	6	12.0	18.8	18.8
	No	26	52.0	81.3	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

18. Are your drivers covered by any kind of collective bargaining agreement?

Drivers covered by collective bargaining?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	3	6.0	9.4	9.4
	No	29	58.0	90.6	100.0
	Total	32	64.0	100.0	
Missing	System	18	36.0		
Total		50	100.0		

19. Could you briefly tell us why your district has not experienced a shortage of qualified school bus drivers?

20. Are you aware of any corporation adjacent to yours that has experienced a shortage of qualified school bus drivers?

Adjacent corporation experiencing shortage?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	12	24.0	66.7	66.7
	No	6	12.0	33.3	100.0
	Total	18	36.0	100.0	
Missing	9.00	32	64.0		
Total		50	100.0		

21. Could you briefly tell us what you understand are the reasons for that shortage?

22. We are interested in your opinion on the school bus drivers physical performance standards and measurements statute. Based on what you know right now about these new qualifications, would you say you ...

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Am not aware of any such discussion	3	6.0	6.0	6.0
	Strongly favor	4	8.0	8.0	14.0
	Favor	15	30.0	30.0	44.0
	Neutral	9	18.0	18.0	62.0
	Oppose	13	26.0	26.0	88.0
	Strongly oppose	6	12.0	12.0	100.0
	Total	50	100.0	100.0	

..... increasing physical standards for qualified bus drivers.

23 Based on what you know about these proposed changes to the physical standards, how do you respond to the following statement:

I believe that licensing and regulatory requirements are beneficial because they insure qualified busdrivers which insure a high level of safety.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	12	24.0	24.0	24.0
	Agree	30	60.0	60.0	84.0
	Disagree	6	12.0	12.0	96.0
	Strongly disagree	1	2.0	2.0	98.0
	No opinion	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

24 Based on what you know about these proposed changes to the licensing requirements, how do you respond to the following statement:

Increasing licensing and regulatory requirements of school bus drivers will lead to shortages or increase current shortages of qualified bus drivers experienced by my district.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	22	44.0	44.0	44.0
	Agree	19	38.0	38.0	82.0
	Disagree	6	12.0	12.0	94.0
	Strongly disagree	1	2.0	2.0	96.0
	No opinion	2	4.0	4.0	100.0
	Total	50	100.0	100.0	